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July 11, 2011

Via Electronic Delivery

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: Inquiry into Spectrum Needs of Positive Train Control
WT Docket No. 11-79
Reply Comments

Dear Ms. Dortch:

The National Rural Telecommunications Cooperative (NRTC) respectfully submits these Reply Comments in response to the Wireless Telecommunications Bureau's May 5, 2011 Public Notice seeking comment on the spectrum needs of Positive Train Control (PTC) pursuant to the Rail Safety Improvement Act of 2008 (RSIA) and Federal Railroad Administration (FRA) regulations.¹ NRTC understands the need to make usable spectrum available to facilitate PTC implementation requirements and offers its available nationwide 220 MHz licenses for consideration by affected railroads.

NRTC is a non-profit cooperative association representing the interests of more than 1,400 rural utilities and affiliates in 47 states. NRTC's mission is to ensure that state-of-the-art telecommunications services are available throughout rural America, just as they are in more urbanized areas.

NRTC is the manager and majority interest holder of NRTC LLC, which holds the following licenses in the 220-222 MHz band: (1) a five-channel Phase I nationwide license (WPCU 518); (2) a 10-channel Phase II nationwide license (WPOI 700); (3) six 7-channel Phase II regional licenses (WPOL 329-334); and (4) a 15-channel Phase II Region 3 (Southeast US) license (WPOK780). NRTC LLC incorporates these licenses into a network of 22 5 kHz paired channels (220 kHz total) effectively covering the entire United States, including not just major urban areas but all of rural America.

Consistent with its responsibilities as Commission licensee, NRTC LLC has made its 220 MHz channels available to NRTC's members and other entities primarily for wireless communications systems that support the safe and efficient operation of electric distribution systems and other core business applications.

¹ See *Wireless Telecommunications Bureau Seeks Comment on Spectrum Needs for the Implementation of the Positive Train Control Provisions of the Rail Safety Improvement Act of 2008*, Public Notice, DA 11-838 (rel. May 5, 2011) ("Public Notice").

Presently, NRTC LLC's network is used mainly by rural electric utilities for Supervisory Control and Data Acquisition (SCADA), voice dispatch, and automated meter reading (AMR) applications in the nation's rural electric distribution and transmission network. NRTC LLC's extensive network has become an essential tool for facilitating the safe and efficient distribution of electric services throughout rural America.

Because NRTC's 220 MHz system is primarily used to serve rural areas, NRTC has been exploring ways to increase utilization of its network in more densely populated urban areas. One of the applications NRTC has been considering is PTC.

As the Commission states in its Public Notice, the RSIA and corresponding FRA regulations issued by the Federal Railroad Administration require passenger and major freight railroads to implement PTC on most major track lines by December 31, 2015. The Comments filed to date in response to the Public Notice reflect that the majority of impacted railroads are desirous of spectrum in the 217.6-222 MHz range, and in particular 220 MHz for PTC operations.²

The Comments note that the areas in which the railroads are most likely to face shortages of spectrum are major urban metropolitan markets – the same areas in which NRTC's spectrum is least likely to be heavily encumbered by operations of its own membership. In its Comments, PTC-220, LLC lists several areas “that could require additional spectrum to adequately support PTC operations.”³ The list consists entirely of metropolitan markets. Other commenters echo similar concerns regarding spectrum constraints in urbanized areas. For example, CSX Transportation lists ten metropolitan areas in which “inadequate spectrum availability” may impact its PTC implementation.⁴ Genesee and Wyoming Inc. states that the “spectrum deficiency” is most likely to be felt in Houston, TX; Portland, OR; Birmingham, AL; and Salt Lake City, UT.⁵ In almost all instances, the areas in which spectrum for PTC is most needed are also areas where NRTC's 220 MHz network is least heavily deployed by its own members.⁶

NRTC sees the potential for several synergies between its network and the planned deployment of PTC. For example, NRTC's J Block 220-222 MHz band licenses at 220/221.925-220/221.960 MHz are adjacent to the J Block licenses held by PTC-220 at 220/221.960-221/222 MHz as both sets of licenses were disaggregated from the same original auctioned spectrum.

² See Comments of PTC-220 at 2.

³ See e.g., Comments of PTC-220 at 3 (listing the following areas where additional spectrum may be needed; Chicago, IL; Philadelphia, PA; Detroit, MI; Dallas/Ft. Worth, TX; Portland, Oregon; Denver, CO; Houston, TX; San Francisco, CA; El Paso, TX; Kansas City, MO; Seattle, WA; New Orleans, LA; Los Angeles, CA; St. Louis, MO; Salt Lake City, UT; Memphis, TN; Atlanta, GA; San Antonio, TX; Minneapolis/St. Paul, MN; Birmingham, AL; New York, NY; and Cincinnati, OH).

⁴ See Comments of CSX Transportation at 2.

⁵ See Comments of Genesee and Wyoming Inc. at 2.

⁶ NRTC has no information regarding the specific amount of spectrum needed for PTC in these or other areas.



Operations spanning both licenses likely could aid in frequency reuse and creation of a larger number of 25 kHz channels than could be accomplished by either group of licenses separately.

Also, as NRTC's existing users primarily operate private operational fixed systems, coordinating operations with railroads along tracks and in rail yards should be more manageable than if NRTC and/or the railroads operated wide area mobile systems or less static networks. Most importantly, neither PTC nor NRTC's systems are used to provide a subscriber-based service supported by commercial fees. Rather, the applications are used by critical infrastructure entities for private, internal purposes and are vital to public safety, either to promote safe and efficient electric utility operations or to prevent railroad incidents. As a result, coordination in the use of these frequencies should be facilitated.

In that regard, NRTC recently entered into a lease with the National Railroad Passenger Corporation (dba AMTRAK) for 220 MHz spectrum for use in the Chicago, Illinois area. A portion of its 220 MHz spectrum also has been partitioned to GE Transportation Systems Global Signaling, LLC for PTC purposes.⁷ NRTC is excited about the opportunity of expanding its system to serve the requirements of other PTC users.

NRTC's efforts to make its 220-222 MHz licenses available for PTC, however, are undercut by uncertainty regarding the Commission's construction requirements. On March 24, 2004, November 5, 2007, and January 9, 2009, respectively, NRTC submitted detailed showings to the Commission requesting confirmation that NRTC LLC's 220 MHz system serving rural electric utilities satisfied the Commission's construction requirements applicable to this band.⁸ NRTC's construction showings demonstrated that its network was being used by dozens of utilities at approximately 400 base station locations in 17 states. NRTC's most recent filing showed that nearly 75% of NRTC's base stations are located in counties where population density is less than 100 persons per square mile. Each time, the Commission declined to rule on NRTC's showing and instead chose to extend the construction deadline applicable to NRTC LLC's licenses.⁹ These extensions historically were granted well *after* the applicable construction deadline had passed, which acted to chill spectrum transactions due to uncertainty in the regulatory status of the licenses.

While NRTC appreciates that the Commission has shown considerable flexibility in extending the deadlines for construction of NRTC's predominately rural 220 MHz system, the Commission is requested as part of this proceeding to clarify that construction extension requests related to compliance with the Rail Safety Improvement Act's December 31, 2015 deadline will be granted as necessary to implement PTC.

Such an affirmative statement from the Commission will promote PTC deployment. It should be clear to the Commission that railroads subject to federally mandated PTC requirements

⁷ See ULS File Nos. L000007665, 0004573974.

⁸ See NRTC LLC, Substantial Service Showing, FCC File No. 0001669382 (March 24, 2004).

⁹ Request of Warren C. Havens for Waiver or Extension of the Five-Year Construction Requirement For 220 MHz Service Phase II Economic Area and Regional Licensees, *Memorandum Opinion and Order*, 19 FCC Rcd 12994 (July 13, 2004).



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intend to deploy facilities in the public interest and do not intend to warehouse spectrum. NRTC suggests that the requested clarification will be a significant aid to PTC deployment nationwide.

NRTC appreciates the opportunity to comment on the Commission's inquiry into PTC spectrum requirements and is available upon request to provide additional information regarding its 220-222 MHz network.

Please feel free to contact the undersigned with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jack Harvey". The signature is fluid and cursive, with a large initial "J" and a long, sweeping underline.

Jack Harvey
President and CEO

